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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,168	03/06/2002	Sridhar Satuloori	5681-08800	9232
7590 01/26/2005			EXAMINER	
Robert C. Kowert			WANG, THOMAS D	
Conley, Rose, & Tayon, P.C.			ART UNIT	PAPER NUMBER
P.O. Box 398 Austin, TX 78767			2122	

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)			
Office Action Summary		10/092,168	SATULOORI ET AL.			
		Examiner	Art Unit			
		Thomas D. Wang	2122			
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).						
Status						
1)🖂	Responsive to communication(s) filed on <u>06 M</u>	arch 2002.				
2a) <u></u> □	This action is FINAL . 2b)⊠ This	action is non-final.				
3)	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
Dispositi	ion of Claims					
4) ☐ Claim(s) 1-53 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1-53 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or election requirement.						
Applicati	ion Papers					
9)[The specification is objected to by the Examine	r.				
10)⊠ The drawing(s) filed on <u>06 March 2002</u> is/are: a) accepted or b)⊠ objected to by the Examiner.						
	Applicant may not request that any objection to the	= : :	, ,			
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority u	ınder 35 U.S.C. § 119					
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 						
Attachmen	t(s)					
1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413)						
3) 🛛 Inform	te of Draftsperson's Patent Drawing Review (PTO-948) mation Disclosure Statement(s) (PTO-1449 or PTO/SB/08) or No(s)/Mail Date March 6, 2002.	Paper No(s)/Mail Do 5) Notice of Informal P 6) Other:	ate Patent Application (PTO-152)			

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DETAILED ACTION

- 1. This action is responsive to the application filed March 6, 2002.
- 2. Claims 1-53 have been examined.

Priority

3. The priority date considered for this application is March 6, 2002.

Drawings

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: page 8, both line 5 and 21 — "requirement 100" —, and page 10 line 26 — controller module 100" —. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

- 5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

- 6. Claims 1-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carlson et al. (US 2003/0056022, hereinafter Carlson) in view of the other art of record A2 "3 The Model-View-Controller Architecture," downloaded from http://rd13doc.cern.ch/Atlas/Notes/004/Note004-7.html (hereinafter 3MVC) of page 1 Figure 2: Relationship between model, view and controller objects, and the 1st 4th paragraphs.
- 7. With respect to claim 1, Carlson discloses á system, comprising:
 - a processor (Carlson col. 6:62, computer platform being any processor);
 - a computer-accessible medium coupled to the processor, wherein the computer-accessible medium is configured to store program instructions executable by the processor to implement an application program (E.g. see Carlson col. 7:8), wherein at least a first one of the application modules comprises a first dynamic component (an instance of dynamic class) and a static component (an instance of static class), wherein the first dynamic component and the static component are configured to function according to an initial set of requirements (an instance of metaclass object) for the application (Carlson col. 5:49, the attributes and methods of a Java class are classified into three categories: statically defined, dynamically defined, and configured); and
 - dynamic component generator configured to receive a new set of
 requirements for the application and generate a second dynamic component

to replace the first dynamic component, wherein the second dynamic component is configured to function according to the new set of requirements (E.g. see Carlson – col. 5:14-25, the present invention allows the creation of new Java classes and the change of existing Java classes...new functionality can be introduced by configuring new classes rather than redevelopment).

Carlson does not specifically disclose the remaining features of claim 1.

However, 3MVC teaches wherein an application program comprising one or more application modules (E.g. see 3MVC, page 1, 2nd paragraph, MVC decouples them thus allowing greater flexibility and possibility for re-use).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the features taught by Carlson with the 3MVC architecture to adopt the concept of decoupling an application program into multiple modules for the benefit of allowing greater flexibility and minimal interruption when requirement is altered (Carlson – col. 1:19 and col. 3:66-4:9, it would therefore be advantageous to provide a system and method for making changes in a J2EE environment, such as added new class or altering existing classes... with the minimal interruption...it is thus to the provision of such a system and method for defining, configuring and using dynamic, persistent Java classes).

- 8. With respect to claim 14, Carlson discloses a *method, comprising:*
 - installing an application modules comprising a static component (Carlson col. 5:49-54, the attributes and methods of a Java class are classified into three categories: statically defined, dynamically defined, and configured; col.

6:60, a computer platform to execute the instruction; office action is taken that installation of application modules takes place prior to the execution of the instructions wherein);

- receiving an initial set of requirements for the application modules (E.g. see
 Carlson col. 5:14-25, creation of new Java classes and the change of
 existing Java classes through persistent configuration; office action is taken
 that a set of requirements is furnished prior to the creation of new Java class,
 which can be dynamically altered as it's being configurable); and
- generating (creating) one or more initial dynamic components (instances of dynamic class) for the one or more application modules, wherein the one or more initial dynamic components (instances of static class) are configured to function according to the initial set of requirements (E.g. see Carlson col. 4:12-17, the creation and implementation of configurable Java classes on a computer platform; col. 4:22-25, the system includes a computer platform executing instructions based upon... and a configurable metaclass object; col. 5:14-25, change of existing Java classes through persistent configuration; office action is taken that initial creation the configurable Java classes and the configuration of metaclass objects are to be based on the initial set of requirements).

Carlson does not specifically disclose the remaining features of claim 14.

However, 3MVC teaches wherein an application program comprising one or more application modules (E.g. see 3MVC, page 1, 1st paragraph).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the features taught by Carlson with the 3MVC architecture to adopt the concept of decoupling an application program into multiple modules for the benefit of allowing greater flexibility and minimal interruption when requirement is altered (Carlson – col. 1:19; col. 3:66-4:9).

- 9. With respect to claim 27, Carlson discloses a *method, comprising:*
 - installing an application module, wherein at least a first one of the application modules comprises a first dynamic component and a static component, wherein the first dynamic component and the static component are configured to function according to an initial set of requirements for the application (Carlson – col. 5:49-54, the attributes and methods of a Java class are classified into three categories: statically defined, dynamically defined, and configured; col. 6:60, a computer platform to execute the instruction; office action is taken that installation of application modules takes place prior to the execution of the instructions wherein);
 - receiving a new set of requirements for the application modules; and generating a new dynamic component to replace the first dynamic component, wherein the new dynamic component is configured to function according to the new set of requirements (E.g. see Carlson – col. 5:14-25, creation of new Java classes and the change of existing Java classes through persistent configuration; office action is taken that a set of requirements is

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furnished prior to the creation of new Java class, which can be dynamically altered as its being configurable).

Carlson does not specifically disclose the remaining features of claim 1.

However, 3MVC teaches wherein an application program comprising one or more application modules (E.g. see 3MVC, page 1, 2nd paragraph).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the features taught by Carlson with the 3MVC architecture to adopt the concept of decoupling an application program into multiple modules for the benefit of allowing greater flexibility and minimal interruption when requirement is altered (Carlson – col. 1:19 and col. 3:66-4:9).

- 10. With respect to claim 41, Carlson discloses a medium comprising program instructions, wherein the program instructions are executable by a processor to implement an application program comprising:
 - wherein at least a first one of the application modules comprises a first dynamic component and a static component, wherein the first dynamic component and the static component are configured to function according to an initial set of requirements for the application (E.g. see Carlson col. 5:49-54, the attributes and methods of a Java class are classified into three categories: statically defined, dynamically defined, and configured; Carlson col. 5:14-25, creation of new Java classes and the change of existing Java classes through persistent configuration; office action is taken that an initial

set of requirements is considered in place prior to the creation of new Java class, which can be dynamically altered as it's being configurable); and

• a dynamic component generator configured to receive a new set of requirements (an altered configurations) for the application and generate a second dynamic component to replace the first dynamic component, wherein the second dynamic component is configured to function according to the new set of requirements (E.g. see Carlson – col. 4:63-5:3, allowing the reconfiguration of the configured Java class with dynamic and configured methods, and selectively altering the attributes and methods of the Java class through...instantiated metaclass object interfaces; col. 5:14-25, change of existing Java classes through persistent configuration).

Carlson does not specifically disclose the remaining features of claim 1.

However, 3MVC teaches wherein an application program comprising one or more application modules (E.g. see 3MVC, page 1, 2nd paragraph).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the features taught by Carlson with the 3MVC architecture to adopt the concept of decoupling an application program into multiple modules for the benefit of allowing greater flexibility and minimal interruption when requirement is altered (Carlson – col. 1:19 and col. 3:66-4:9).

11. With respect to claims 2, 30 and 42, the rejection of base claims 1, 27 and 41 are respectively incorporated. Carlson further discloses wherein the static/dynamic component generator does not change the static component in response to the new set

of requirements (E.g. see Carlson – col. 4:2-9, new functionality could be introduced without needing to redeploy the entire application; col. 4:63-5:3, selectively altering the attributes and methods of the java class through one or more of the instantiated metaclass object interfaces).

- 12. With respect to claims 3, 31 and 43, the rejection of base claims 1, 27 and 41 are respectively incorporated. Carlson further discloses wherein the dynamic component generator is configured to generate a second dynamic component to replace the first dynamic component by modifying the first dynamic component in response to the new set of requirements (E.g. see Carlson col. 4:63-5:3, a method for altering a configurable Java class on a computer platform... the configurable metaclass object allowing the reconfiguration of the configured java class with dynamic and configured methods, and selectively altering the attributes and methods).
- 13. With respect to claims 4, 32 and 44, the rejection of base claims 1, 27 and 41 are respectively incorporated. Carlson further discloses wherein the dynamic component generator is configured to replace the first dynamic component by overwriting the first dynamic component in the computer-accessible medium in response to the new set of requirements (E.g. see Carlson col. 4:47-62, a computer program embodied on a computer-readable medium... the program enables a configurable persistent Java class within a set of Java language instructs including a configurable metaclass object; col. 5:59-62, all existing instances will have the altered methods and attributes).
- 14. With respect to claims 5, 33 and 45, the rejection of base claims 1, 27 and 41 are respectively incorporated. Carlson further discloses wherein the new set of

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requirements is formatted according to an eXtensible Mark-up Language (XML) schema and stored in the computer-accessible medium (E.g. see Carlson – col. 4:44-46, the metaclass object can be coded in XML, Java, or any other programming language with like functionality; col. 8:15-22, an XML file can be input to the J2EE platform with the definitions of the dynamic properties and methods).

- 15. With respect to claims 6, 34 and 46, the rejection of base claims 1, 27 and 41 are respectively incorporated. Carlson further discloses wherein the one or more application modules comprise a second application module comprising a static component and a dynamic component (E.g. see Carlson col. 6:58-7:6, the configurable metaclass object including a plurality of subclasses and interfaces).
- 16. With respect to claims 7, 35, 47 and 53, the rejection of base claims 6, 34, 46 and 51 are respectively incorporated. Carlson further discloses wherein the dynamic component generator is configured to generate a new dynamic component for the second application module in response to receiving the new set of requirements (E.g. see Carlson col. 3:67-4:9, making changes in a J2EE environment, such as added new class or altering existing classes, at runtime of the system with minimal interruption... new functionality could be introduced without needing to redeploy the entire application; col. 4:27, the plurality of subclasses and interface of the metaclass object include methods to selectively alter the attributes and methods of a Java class instance).

17. With respect to claim 26, the rejection of base claim 24 is incorporated. Carlson further discloses wherein *further comprising* (E.g. see Carlson – col. 3:67-4:9 and col. 4:27):

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- receiving a new set of requirements indicating a change to the application data representation; and
- generating a new dynamic data model in response to the change to the application data representation.
- 18. With respect to claims 8 and 48, the rejection of base claims 6 and 46 are respectively incorporated. Carlson further discloses wherein further comprising another dynamic component generator for the dynamic component of the second application module, wherein the other dynamic component generator is configured to generate a new dynamic component for the second application module in response to receiving a new set of requirements for the second application module (E.g. see Carlson col. 4:63-5:3, selectively altering the attributes and methods of the Java class through one or more of the instantiated metaclass object interfaces).
- 19. With respect to claims 9, 36 and 49, the rejection of base claims 1, 27 and 41 are respectively incorporated. Carlson does not explicitly disclose the remaining features of claim 9. However, 3MVC teaches wherein the first application module is a controller module, wherein the static component is a router component configured to receive user input, and wherein the dynamic component is an application logic component coupled to the router component, wherein the application logic component is configured to function according to a current set of application requirements in response to the user input (E.g.

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3MVC, page 1, 4th paragraph – having data manipulated through methods that are independent of the GUI (same page 4th paragraph).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the features taught by Carlson with the 3MVC architecture to further separate the application object thus allowing greater flexibility and possibility for re-use, as it is also suggested by Carlson that it would be advantageous to provide such a system and method for making changes in a J2EE environment at runtime of the system with minimal interruption. In such system and method, new functionality could be introduced without needing to redeploy the entire application, and without further manual coding and compiling of the system software. (Carlson – col. 3:66-4:9).

- 20. With respect to claims 10, 37 and 50, the rejection of base claims 9, 36 and 49 are respectively incorporated. Carlson further discloses wherein the application logic component comprises an Enterprise Java Bean (EJB) session bean (E.g. see Carlson col. 5:64-6:5, the invention accordingly consists of a design and implementation that allows adding dynamically defined as well as configured methods and attributes to an EJB preferably on the J2EE).
- 21. With respect to claims 11, 38 and 51, the rejection of base claims 1, 27 and 41 are respectively incorporated. Carlson does not explicitly disclose the remaining features of claim 11. However, 3MVC teaches wherein the first application module is a model module (E.g. see 3MVC, Figure 2 module Model; 3rd paragraph model object knows about all the data that need to be displayed; page 1, 2nd paragraph the goal of

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the MVC design pattern is to separate the application object), wherein the static component is a static data model configured to function independent of an application data representation, and wherein the dynamic component is a dynamic data model configured to function dependent upon the application data representation and according to a current set of application requirements in response to the user input (E.g. see 3MVC, page 1, 4th paragraph – data are accessed and manipulated through methods that are independent of the GUI).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the features taught by Carlson with the 3MVC architecture to further separate the application object thus allowing greater flexibility and possibility for re-use, as it is also suggested by Carlson that it would be advantageous to provide such a system and method for making changes in a J2EE environment at runtime of the system with minimal interruption. In such system and method, new functionality could be introduced without needing to redeploy the entire application, and without further manual coding and compiling of the system software. (Carlson – col. 3:66-4:9).

22. With respect to claims 12, 25, 39 and 52, the rejection of base claims 11, 24, 38 and 51 are respectively incorporated. Carlson further discloses wherein the dynamic data model comprises an Enterprise Java Bean (EJB) entity bean (E.g. see Carlson – col. 5:64-6:5, the invention accordingly consists of a design and implementation that allows adding dynamically defined as well as configured methods and attributes to an EJB preferably on the J2EE).

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- 23. With respect to claims 13 and 40, the rejection of base claims 11 and 38 are respectively incorporated. Carlson further discloses wherein the new set of requirements indicates a change to the application data representation, and wherein the dynamic component generator is configured to generate a new dynamic data model in response to the change to the application data representation (E.g. see Carlson col. 3:67-4:9, making changes in a J2EE environment, such as added new class or altering existing classes, at runtime of the system with minimal interruption...new functionality could be introduced without needing to redeploy the entire application; col. 4:27, the plurality of subclasses and interface of the metaclass object include methods to selectively alter the attributes and methods of a Java class instance).
- 24. With respect to claim 15, the rejection of base claim 14 is incorporated. Carlson further discloses wherein further comprising (E.g. see Carlson col. 5:14-25):
 - receiving a new set of requirements for the application modules; and
 - generating one or more new dynamic components to replace the one or more initial dynamic components, wherein the one or more new dynamic components are configured to function according to the new set of requirements.
- 25. With respect to claim 16, the rejection of base claim 15 is incorporated. Carlson further discloses wherein said generating one or more new dynamic components comprises replacing the one or more initial dynamic components by the one or more new dynamic components by modifying the each of the one or more initial dynamic

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components in response to the new set of requirements (E.g. see Carlson – col. 4:63-5:3).

- 26. With respect to claim 17, the rejection of base claim 15 is incorporated. Carlson further discloses wherein said generating one or more new dynamic components comprises replacing the one or more initial dynamic components by the one or more new dynamic components by overwriting each of the one or more initial dynamic components in a computer-accessible medium in response to the new set of requirements (E.g. see Carlson col. 4:47-62 and col. 5:59-62).
- 27. With respect to claim 18, the rejection of base claim 14 is incorporated. Carlson further discloses wherein said generating is performed by one or more dynamic component generators, wherein the one or more dynamic component generators are comprised within the same application as the one or more application modules (E.g. see Carlson col. 4:63-5:3).
- 28. With respect to claim 19, the rejection of base claim 14 is incorporated. Carlson further discloses wherein said generating is performed by one or more dynamic component generators comprised within an application server container, wherein the application modules are comprised within the same application server container (E.g. see Carlson col. 1:32-34, in a business computer environment, EJB is a common server-side component architecture for the J2EE).
- 29. With respect to claim 20, the rejection of base claim 14 is incorporated. Carlson further discloses wherein said generating, the static components comprised by the one

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or more application modules are not changed in response to the new set of requirements (E.g. see Carlson – col. 4:2-9 and col. 4:63-5:3).

- 30. With respect to claim 21, the rejection of base claim 14 is incorporated. Carlson further discloses wherein the new set of requirements is formatted according to an eXtensible Mark-up Language (XML) schema (E.g. see Carlson col. 4:44-46 and col. 8:15-22).
- 31. With respect to claim 22, the rejection of base claim 14 is incorporated. Carlson does not explicitly disclose the remaining features of claim 9. However, 3MVC teaches wherein one of the one or more application modules is a controller module, wherein the static component is a router component configured to receive user input, and wherein a dynamic component generated for the one of the one or more application modules is an application logic component coupled to the router component, wherein the application logic component is configured to function according to a current set of requirements in response to the user input (E.g. see 3MVC, page 1, 4th paragraph).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the features taught by Carlson with the 3MVC architecture to further separate the application object thus allowing greater flexibility and possibility for re-use, as it is also suggested by Carlson that it would be advantageous to provide such a system and method for making changes in a J2EE environment at runtime of the system with minimal interruption. In such system and method, new functionality could be introduced without needing to redeploy the entire

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application, and without further manual coding and compiling of the system software. (Carlson – col. 3:66-4:9).

- 32. With respect to claim 23, the rejection of base claim 22 is incorporated. Carlson further discloses wherein the application logic component comprises an Enterprise Java Bean (EJB) session bean (E.g. see Carlson col. 5:64-6:5).
- 33. With respect to claim 24, the rejection of base claim 14 is incorporated. Carlson does not explicitly disclose the remaining features of claim 24. However, 3MVC teaches wherein one of the one or more application modules is a model module (E.g. see 3MVC, Figure 2 module Model; 3rd paragraph, and page 1, 2nd paragraph), wherein the static component is a static data model configured to function independent of an application data representation, and wherein a dynamic component generated for the one of the one or more application modules is a dynamic data model configured to function dependent upon the application data representation and according to a current set of requirements in response to the user input (E.g. see 3MVC, page 1, 4th paragraph).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the features taught by Carlson with the 3MVC architecture to further separate the application object thus allowing greater flexibility and possibility for re-use, as it is also suggested by Carlson that it would be advantageous to provide such a system and method for making changes in a J2EE environment at runtime of the system with minimal interruption. In such system and method, new functionality could be introduced without needing to redeploy the entire

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application, and without further manual coding and compiling of the system software. (Carlson – col. 3:66-4:9).

- 34. With respect to claim 28, the rejection of base claim 27 is incorporated. Carlson further discloses wherein said generating is performed by one or more dynamic component generators, wherein the one or more dynamic component generators are comprised within the same application server as the one or more application modules (E.g. see Carlson col. 1:32-34).
- 35. With respect to claim 29, the rejection of base claim 27 is incorporated. Carlson further discloses wherein said generating is performed by one or more dynamic component generator comprised within an application server container, wherein the one or more application modules are comprised within the same application server container (E.g. see Carlson col. 1:32-34).

Conclusion

- 36. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- 37. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas D. Wang whose telephone number is (571) 272-7954. The examiner can normally be reached on 8:00-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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January 7, 2005

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